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Reforming polymerised liposomes encapsulating bioactive materials contg. polymerisable phospholipid so that no denaturation occurs

CRR 140174

A method of forming liposomes from encapsulating material of contg. polymerizable phospholipid is claimed. They are polymerized and freeze dried to powders, the powders dispersed in a water medium and the liposomes reformed. The reformed liposomes may be further polymerized to stabilize them.

USE/ADVANTAGE

The method is used to form stable liposomes encapsulating bioactive materials, which can be encapsulated without denaturing when the liposomes are reformed.

The freeze-dried powders can be stored over long periods.

EXAMPLE

1,2 bis(2,4-octadecadienoyl) sn-glycero 3 phosphocholine and azobisisobutyronitrile were mixed in mol. ratio of 100:1. The mixt. was dispersed in water and irradiated with ultra

A(4-A, 7-B, 9-A, 12-S9, 12-W5, 12-W11) B(4-B1B, 4-B4A1, 5-B1P, 12-M11C) 4

sonic waves to form liposomes having 20 nm radius, which were aged to give 50 nm radius liposomes.

The liposomes were heated to 60°C to polymerize them, and freeze dried below -20°C. The resultant powders were dispersed in water and irradiated by ultrasonic waves to

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